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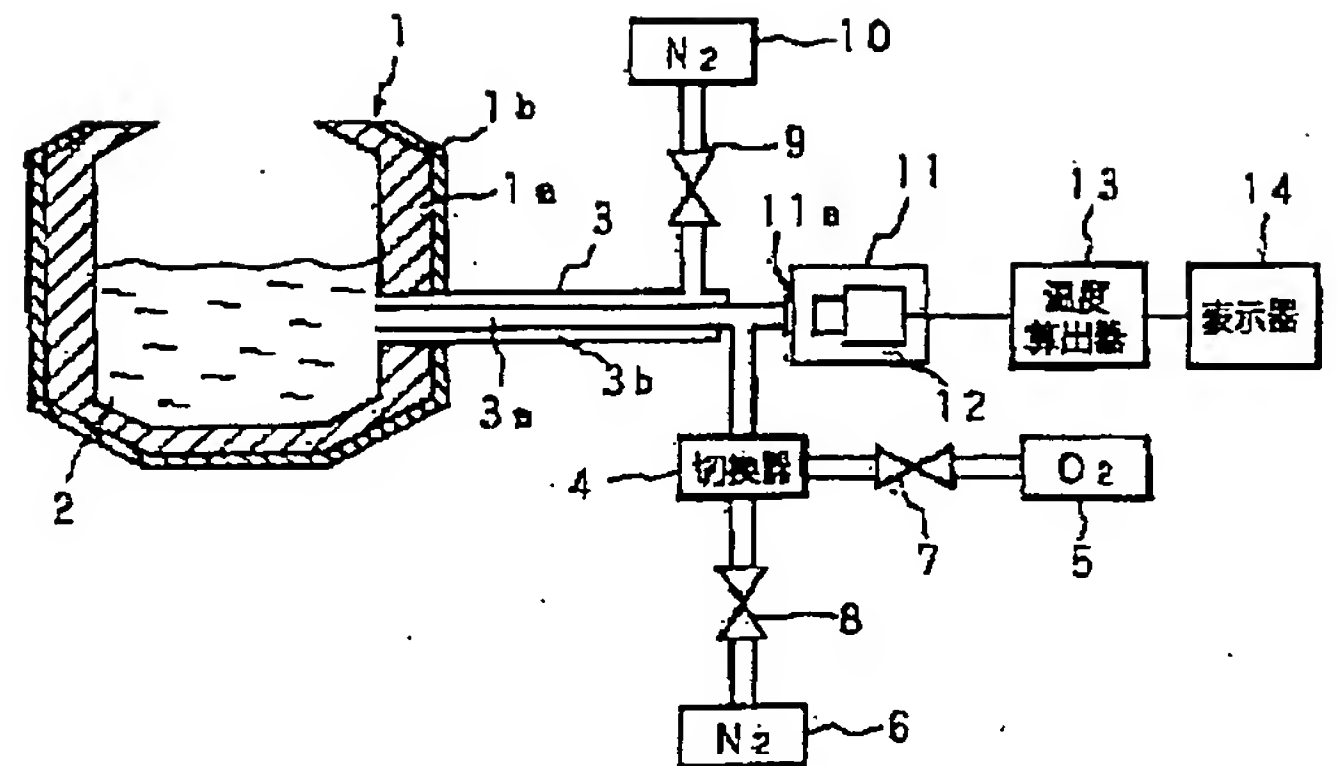
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APPLICANT : SUMITOMO METAL IND LTD;

INVENTOR : OKADA TAKESHI;

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TITLE : TEMPERATURE MEASURING
METHOD AND DEVICE FOR MOLTEN
BATH IN FURNACE



ABSTRACT : PROBLEM TO BE SOLVED: To provide a method and a device capable of measuring the accurate temperature of a molten bath in a furnace directly and instantaneously.

SOLUTION: A double-tube tuyere 3 opened in a molten steel 2 is provided on the side wall of a blast furnace 1. At the time of a normal blast, the mixed gas of oxygen gas and nitrogen gas (inert gas) is introduced in an inner tube 3a, and the nitrogen gas for cooling the tip of the tuyere 3 is introduced in an outer tube 3b to maintain the blowing tuyere 3. At the time of temperature measurement, only the nitrogen gas (inert gas) is introduced in the inner tube 3a, the tip section of the tuyere 3 is photographed by a CCD camera 2 before a mushroom is generated from immediately after the introduced gas is switched (blast stop), and the temperature corresponding to the highest luminance in the obtained image is calculated by a temperature calculator 13 as the temperature of the molten steel 2.

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